

APA 1

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **42**
- SRM **6.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.7 liter(s)**
- Total mash volume **13.7 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **10.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (82%)	81 %	4
Grain	Pszeniczny	0.3 kg (9.8%)	85 %	4
Grain	Strzegom Karmel 150	0.25 kg (8.2%)	75 %	100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	55 min	11 %
Whirlpool	Amarillo	40 g	1 min	8.5 %
Whirlpool	Chinook	48 g	1 min	11.7 %
Dry Hop	Citra	50 g	2 day(s)	12.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis